



# MFM.EVAL.01.DI2C

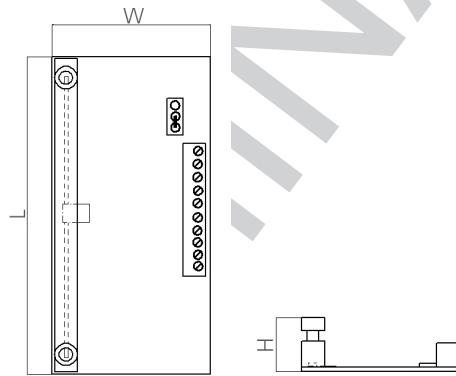
## MicroFlow Evaluation Module

### Optimal for very low differential pressure applications

#### Benefits & Characteristics

- MFS05 micro flow sensor - MEMS component
- 5 Pa operating measuring range
- 2 million digital counts with 5 mPa noise free resolution
- Repeatability near zero less than 0.02 % full scale
- 24 bit resolution (flow / pressure)
- Patented flow measurement
- Integrated temperature measurement with 24 bit resolution
- Digital (I<sup>2</sup>C, SPI) or PWM signal output

#### Illustration<sup>1)</sup>



1) For actual size, see dimensions

#### Technical Data

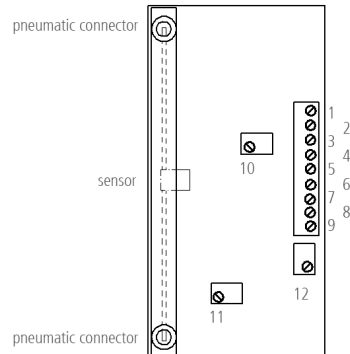
Measuring principle:	Thermal
Operating measuring range:	0 ml/min to 10 ml/min (0 Pa to 5 Pa)
Response time:	Min. 100 ms
Resolution:	Approximately 5 µl/min
Operating temperature range:	+15 °C to +25 °C (calibrated at 23 °C)
Connection:	Screw terminal
Pneumatic connection:	Festo CK-M5-PK-4
Supply voltage (electronics):	3.3 V <sub>DC</sub> ± 5 %
Supply voltage (heater):	5.0 V <sub>DC</sub> ± 5 %
Current consumption:	3 mA at 3.3 V 5 mA at 5 V
Dimensions (L x W x H in mm)	70 x 35 x 14 (example)

Module available with I<sup>2</sup>C- or SPI-to-USB-adaptor and software for evaluation with PC  
No reverse polarity or over voltage protection of supply voltage



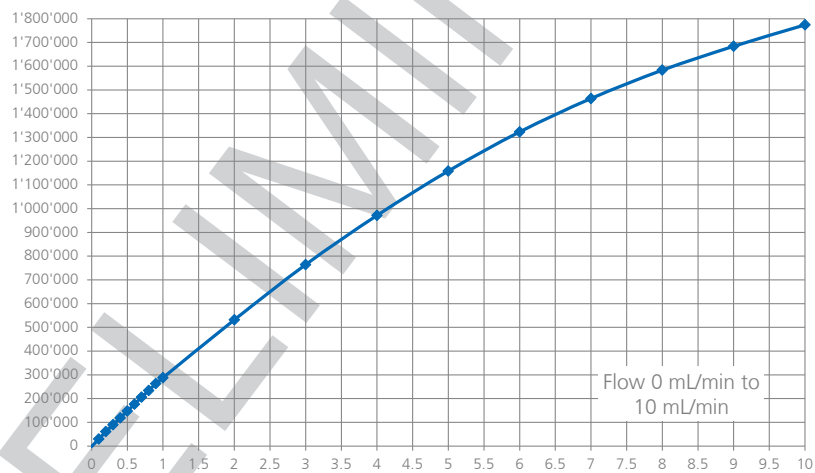
\* Customer-specific alternatives available

## Pin Assignment



1	2	3	4	5	6
+3.3 V <sub>DC</sub>		+5.5 V <sub>DC</sub>	chip select	GND	SPI CKL / SCL
7	8	9	10	11	
SPI MOSI	SPI MISO / SDA			I <sup>2</sup> C (default) or SPI	

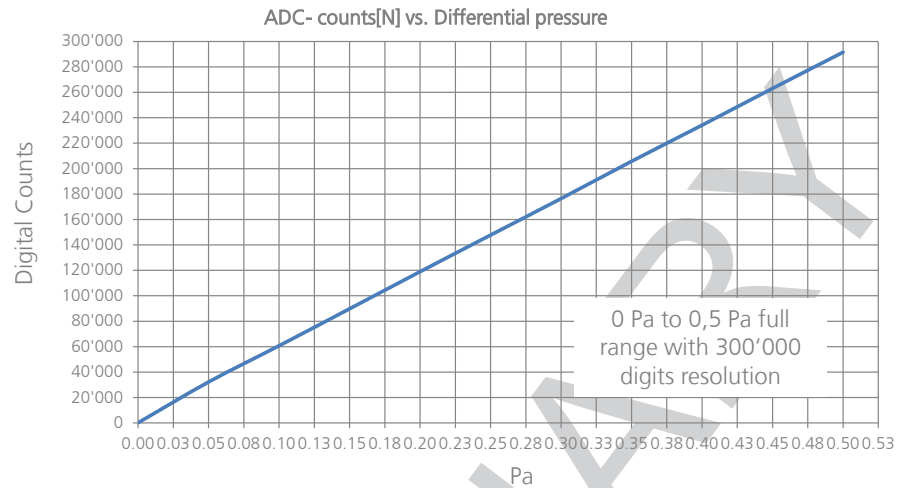
## Digital output signal of sensor frontend<sup>1)</sup>



1) Depending on differential pressure



## Digital output signal of sensor frontend<sup>1)</sup>



1) Depending on differential pressure

## Order Information

Order code	MFM.EVAL.01.D12C upon request
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PRELIMINARY



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